



Report to: General Committee

Meeting Date: May 1, 2017

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**SUBJECT:** 151-R-16 Consulting Engineering Services for West Thornhill - Phase 3 Storm Sewer Upgrades and Watermain Replacement

**PREPARED BY:** Rob Muir, Manager, Environmental Services - Stormwater, Ext. 2894  
Flora Chan, Senior Buyer, Ext. 3189

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**RECOMMENDATIONS:**

- 1) THAT the report entitled “151-R-16 Consulting Engineering Services for West Thornhill - Phase 3 Storm Sewer Upgrades and Watermain Replacement” be received;
- 2) AND THAT the detailed design work under contract 151-R-16 Consulting Engineering Services for West Thornhill - Phase 3 (inclusive of Phases 3A, 3B and 3C) Storm Sewer Upgrades and Watermain Replacement be awarded to the highest ranked, second lowest priced Bidder, R.V. Anderson Associates Limited, in the amount of \$644,608.90, inclusive of HST;
- 3) AND THAT a 10% contingency in the amount of \$64,460.90, inclusive of HST, be established to cover any additional construction costs and that authorization to approve expenditures of this contingency amount up to the specified limit be in accordance with the Expenditure Control Policy;
- 4) AND THAT the detailed design in the amount of \$709,069.80 be funded from the capital projects 16211 “West Thornhill Flood Control Design – Phase 3” and project 16247 “Watermain Construction Design for 2017” as outlined under the financial considerations section in this report;
- 5) AND THAT the budget remaining in project 16211 “West Thornhill Flood Control Design – Phase 3” and project 16247 “Watermain Construction Design for 2017” in the amounts of \$285,565.10 and \$8,166.40 respectively, be returned to original funding sources;
- 6) AND THAT the contract administration services award (inclusive of 10% contingency) for Phase 3A in the amount of \$390,992.44 (\$355,447.68 + \$35,544.76), Phase 3B in the amount of \$394,843.04 (\$358,948.22 + \$35,894.82) and Phase 3C in the amount of \$402,589.02 (\$365,990.02 + \$36,599.00) as outlined under the financial considerations section of this report be requested as part of the 2020, 2021 and 2022 Capital budget process, subject to Council approval;
- 7) AND THAT the future Purchase Order for contract administration of Phases 3A, 3B & 3C be updated to reflect the actual construction time required based on the final design; and
- 8) AND THAT Staff be authorized and directed to do all things necessary to give effect to this resolution.

**PURPOSE:**

The purpose of this report is to obtain Council approval to award for Consulting Engineering Services for West Thornhill - Phase 3 Storm Sewer Upgrades and Watermain Replacement.

**BACKGROUND:**

Stormwater flood control implementation strategy was approved by Council on November 8, 2011 for the West Thornhill area in accordance with the City's November 2010 Class EA Study. The City-wide Flood Control Program is a 30 year program with an estimated cost of \$234M - \$288M (2014 dollars). The first phase (1A, 1B & 1C) of the remediation includes storm sewer capacity upgrades in the Bayview Glen neighbourhood, second phase (2A, 2B, 2C & 2D) includes the Grandview area, third phase (3A, 3B & 3C) includes Clark Avenue/ Henderson Avenue area and phase 4 includes Royal Orchard Road area.

**Project Status:**

Area	Current Implementation Schedule	Status
Phase 1A: Bayview Glen Area	2014 - 2015	Completed as of Nov 2016; Maintenance completion Nov 2017
Phase 1B: Bayview Glen Area	2015 - 2016	Substantially completed as of Aug 2016; Maintenance completion Aug 2018
Phase 1C: Canadiana Road	2016	Substantially completed as of Dec 2016 Maintenance completion Dec 2018;
Phase 2A: Grandview Area	2016 - 2017	Substantially completed as of Dec 2016; Maintenance completion Dec 2018
Phase 2B: Grandview Area (Park & Proctor Ave)	2017 - 2018	Construction Commencement: May 2017
Phase 2C: Grandview Area	2018 - 2019	Design – 60% completed
Phase 2D: Grandview Area	2019 - 2020	Design – 60% completed
Phase 3: Clark Ave/ Henderson Area ( <b>This Design Award</b> )	2020 - 2022	
Phase 4: Royal Orchard Area	2022 - 2025	

**OPTIONS/ DISCUSSION:****Bid Information:**

Advertised	ETN (Electronic Tendering Network)
Bids closed on	January 26, 2017
Number picking up the Bid document	23
Number responding to the Bid	6

**Proposal Evaluation:**

The Evaluation Team was comprised of staff from the Environmental Services department and facilitated by staff from the Purchasing department. Due to the complexity of the project, staff wanted to ensure that bidders had the necessary qualifications and experience to carry out the work and as such, the City released this RFP utilizing a two-stage process.

**Stage One (1) – Technical Evaluation:**

Under Stage 1 – Technical Evaluation (Envelope 'A'), Bidders were assessed against pre-determined criteria as outlined in the RFP; Experience/Past Performance of the consulting firm 15%, similar projects completed 5%, qualifications and experience of the project manager and project team 20% and project delivery 30% totaling 70%. Upon completion of Stage 1 (technical evaluation), the Price

Proposal (Bid Form) provided by those Bidders who qualified from Stage 1, (minimum score of 75%, or 52.5 points out of 70 required), proceeded to Stage 2 for price evaluation.

**Stage Two (2) – Price Evaluation:**

Based on the Stage 1 evaluation, Bidders who received a minimum of 75% or 52.5 points out of 70 proceeded to Stage 2 - Price Evaluation. The price proposal provided by the Bidders is evaluated out of 30 points, based on the criteria outlined in the RFP.

Stage 1 & 2 – Combined Overall Scoring

The scores from the Stage 1 and 2 evaluations were combined to formulate final overall scoring, as summarized below:

<b>Company</b>	<b>Stage 1 Technical Evaluation (70 points)</b>	<b>Stage 2 Price Evaluation (30 points)</b>	<b>Total Score (100 points)</b>	<b>Overall Ranking</b>
<b>R.V. Anderson Associates Limited</b>	<b>65.6</b>	<b>28.9</b>	<b>94.4</b>	<b>1</b>
MMM Group Limited (WSP)	60.8	25.7	86.5	2
Accardi Schaeffers	61.1	25.2	86.2	3
TMIG	54.3	30.0	84.3	4
CIMA Canada	53.5	27.6	81.0	5
Associated Engineering	48.7	0.0*	48.7*	6

\*Bidders that did not achieve a technical score of 52.5 points or higher were not considered for Stage 2 evaluation. Bid prices ranged from \$1,662,413.43 to \$1,929,595.51, inclusive of HST Impact.

R.V. Anderson Associates Limited, the highest ranked bidder with the highest technical score and second lowest price, demonstrated a good understanding of the project, had an experienced and qualified project team and illustrated a comprehensive plan and methodology for the project. R.V. Anderson was previously awarded the design contracts and contract administration contracts for earlier Phases 1 and 2 and their performance was satisfactory.

Project Schedule:

<b>Phases</b>	<b>Estimated Construction Period</b>	<b>Anticipated Commencement</b>	<b>Anticipated Substantial Completion</b>
Phase 3A – Clark Ave/ Henderson Area	32 weeks	May 2020	June 2021
Phase 3B – Clark Ave/ Henderson Area	32 weeks	May 2021	June 2022
Phase 3C – Clark Ave/ Henderson Area	32 weeks	May 2022	June 2023

**FINANCIAL CONSIDERATIONS AND TEMPLATE:****Consulting Engineering/Design Services for Phase 3 (inclusive of Phases 3A, 3B and 3C):**

The following table summarizes the financial considerations:

<b>Phase</b>		<b>Storm</b>	<b>Water</b>	<b>Total Cost</b>	
<b>3</b>	Budget Available for Phase 3 Design (A)	\$641,100.00	\$362,701.29	\$1,003,801.29	058-6150-16211-005 "West Thornhill Flood Control Design - Phase 3" & 053-6150-16247-005 "Watermain Construction Design for 2017"
	Less: Design Award for Phase 3 (B)	\$322,304.45	\$322,304.45	\$644,608.90	Award to R.V. Anderson Associates Ltd. (incl. of HST impact)*
	Less: Design Contingency (10%) (C)	\$32,230.45	\$32,230.45	\$64,460.90	
	<b>Total Cost of Phase 3 Design (D) = (B) + (C)</b>	<b>\$354,534.90</b>	<b>\$354,534.90</b>	<b>\$709,069.80</b>	
	Budget Remaining (E) = (A) - (D)	\$285,565.10	\$8,166.39	\$294,731.49	**

\*Funding of this award will be shared equally between Capital Project #16211 "West Thornhill Flood Control Implementation – Phase 3" and Capital Project 053-6150-16247-005 "Watermain Construction Design for 2017".

\*\*The remaining budget of \$285,565.10 and \$8,166.39 will be returned to the respective original funding sources.

**Future Contract Administration Services for Phases 3A, 3B and 3C:**

The Purchase Order will not be issued until 2020, 2021 and 2022, subject to Council approval of the respective year's Capital Budgets. Under this award, Staff are able to lock in pricing for the contract administration and contract inspection required in these years.

<b>Phase</b>		<b>Storm</b>	<b>Water</b>	<b>Total Cost</b>	<b>Phase</b>
<b>3A</b>	2020 Budget	N/A	N/A	N/A	Subject to Council approval of the 2020 Capital budget
	Contract Administration (F)	\$177,723.84	\$177,723.84	\$355,447.68	
	Less: CA Contingency (10%) (G)	\$17,772.38	\$17,772.38	\$35,544.76	
	<b>Total Cost of Phase 3A (H) = (F) + (G)</b>	<b>\$195,496.22</b>	<b>\$195,496.22</b>	<b>\$390,992.44</b>	
<b>3B</b>	2021 Budget	N/A	N/A	N/A	Subject to Council approval of the 2021 Capital budget
	Contract Administration (I)	\$179,474.11	\$179,474.11	\$358,948.22	
	Less: CA Contingency (10%) (J)	\$17,947.41	\$17,947.41	\$35,894.82	
	<b>Total Cost of Phase 3B (K) = (I) + (J)</b>	<b>\$197,421.52</b>	<b>\$197,421.52</b>	<b>\$394,843.04</b>	

<b>3C</b>	2022 Budget	N/A	N/A	N/A	Subject to Council approval of the 2022 Capital budget
	Contract Administration (L)	\$182,995.01	\$182,995.01	\$365,990.02	
	Less: CA Contingency (10%) (M)	\$18,299.50	\$18,299.50	\$36,599.00	
	<b>Total Cost of Phase 3B (N) = (L) + (M)</b>	<b>\$201,294.51</b>	<b>\$201,294.51</b>	<b>\$402,589.02</b>	
	<b>Total Cost of Phases 3A, 3B &amp; 3C (O) = (H + K + N)</b>	<b>\$594,212.25</b>	<b>\$594,212.25</b>	<b>\$1,188,424.50</b>	

The cost estimate for Phases 3A, 3B and 3C are based on an estimated construction period of 32 weeks. The construction period may change subject to detailed design and therefore the purchase order for Phases 3A, 3B and 3C may need to be adjusted.

**OPERATING BUDGET AND LIFE CYCLE RESERVE IMPACT**

The constructed stormwater and waterworks infrastructure is estimated to last 100 years. As such, there is no impact to the Life Cycle Replacement and Capital Reserve which takes into account capital replacements within 25 years. There is no operating budget impact.

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

The proposed flood remediation program is in line with City’s goal to provide better quality services to the public and is consistent with the Building Markham’s Future Together strategic priority on the “Growth Management” and “Environment” as it considers sustainability on the built environment.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

Finance department has been consulted and their comments have been incorporated.

**RECOMMENDED BY:**

X   
 Prathapan Kumar  
 Acting Director, Environmental Services

X   
 Brenda Librecz  
 Commissioner, Community & Fire Services

**ATTACHMENTS:**

Attachment A – West Thornhill – Phase 3 Area

Attachment B – West Thornhill Flood Control Implementation Phases